

SWITCHED POWER SUPPLY CONVERTER FOR BROAD RANGE OF INPUT VOLTAGES

Abstract

Switched power supply converter for broad range of input voltages that comprises a first stage (11) connected in cascade with a second stage (21), such that a first voltage supplied from a voltage source is converted into a second voltage by means of a first switching element (11-3). The second voltage is transformed into a third DC voltage by the operation of the second stage (21).

A control circuit (11-9) controls the duty cycle of the first switching element (11-3) so that the duty cycle varies between a first limit and a second limit of the duty cycle when the first voltage lies within a predetermined voltage range. The control circuit (11-9) sets the duty cycle to the first limit of the duty cycle or to the second limit of the duty cycle in the event of the first voltage being outside the predetermined range of voltage values.